

# WICHITA RIVER BASIN REEVALUATION WICHITA RIVER, TEXAS

#### AFFECTED ENVIRONMENT

## **STUDY REACHES**

The Wichita River Basin Reevaluation Study will encompass all of the Wichita River from the brine collection facilities downstream to the Wichita River's confluence with the Red River and the upper Red River from its confluence with the Wichita River downstream to Lake Texoma. A map delineating the study reaches is attached. Study reaches to be evaluated include Reach 10 (North and Middle Wichita), Reach 11 (South Wichita), Reach 9 (Wichita River and Lake Kemp), Reach 8 (Wichita River to its confluence with the Red River), Reach 6 (Upper Red River to Lake Texoma), and Reach 5 (Lake Texoma). This constitutes a major change over the Red River Chloride Control Project (RRCCP) in that Reaches 7, 13, 14, and 15 (Elm Creek, the North Fork of the Red River, the Prairie Dog Town Fork of the Red River, the Pease River, and the Red River upstream from its confluence with the Wichita River) would be unaffected with implementation of the new project.

## **TARGET GOAL**

The environmental impacts and benefits predicted for the impacted reaches of the Wichita River are being reevaluated. Predictions for these reaches will be based on the same output goal as the original RRCCP, which was to keep chloride concentrations in Lake Kemp at or less than 250 mg/l for 98% of the time.

#### **CHLORIDE LOADINGS**

The total percent reduction in chlorides in Reaches 5 and 6 with construction of the Wichita River Basin facilities would depend upon any reduction of manmade brines that has been or would be realized. A total of 3,370 tons per day chloride loading is experienced basin-wide. Of that, 2,250 tons have been identified as coming from natural major point sources, while the remaining 1,119 tons come from minor natural and manmade sources. A total of 405 tons is already being controlled by the operation of Areas V and VIII, leaving a total of 2,965 tons per day loading remaining. For the target chloride concentrations to be met in Lake Kemp, approximately 197 tons per day must be removed from the watershed above the lake in addition to the 165 tons currently being removed from Area VIII. Therefore, the total percent reduction in chlorides in Reaches 5



and 6 with completion of the Wichita River Basin facilities would fall between approximately 6.6% and 10.7 % of current levels.

This is opposed to the 44.1% total chloride reduction over current levels in Reaches 5 and 6 that was expected to occur with the original RRCCP. The percent and the total reduction in chlorides in Reaches 5 and 6 would be much less with completion of the Wichita River facilities than with the original RRCCP. Because many of the potential environmental impacts for Reaches 5 and 6 with the RRCCP were not as severe as upstream reaches, impacts to Lake Texoma and the Red River as a result of constructing only the Wichita River portion of the project should be significantly reduced.

### **Information, Comments and Questions:**

The Corps is actively seeking public involvement in the planning of the Wichita Basin Project. Inquiries and comments can be directed to:

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Information about the project can also be obtained from the Tulsa District World Wide Web Site-- www.swt.usace.army.mil.

